**Science Vocabulary**

**5th Grade**

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| **Physical Science** | | |
| **Forces and Motion**  **5.P.1 Understand force, motion and the relationship between them.**  5.P.1.1 Explain how factors such as gravity, friction, and change in mass affect the motion of objects.  5.P.1.2 Infer the motion of objects in terms of how far they travel in a certain amount of time and the direction in which they travel.  5.P.1.3 Illustrate the motion of an object using a graph to show a change in position over a period of time.  5.P.1.4 Predict the effect of a given force or a change in mass on the motion of an object. | gravity  mass  friction  force  push  pull  motion  position  direction | acceleration  graph/line graph axis  speed  (average rate of speed, average speed, constant speed) |
| **Matter: Properties and Change**  **5.P.2 Understand the interactions of matter and energy and the changes that occur.**  5.P.2.1 Explain how the sun’s energy impacts the processes of the water cycle (including, evaporation, transpiration, condensation, precipitation and runoff).  5.P.2.2 Compare the weight of an object to the sum of the weight of its parts before and after an interaction.  5.P.2.3 Summarize properties of original materials, and the new material(s) formed, to demonstrate that a change has occurred. | matter  energy  Sun’s energy  water cycle  evaporate/evaporation  transpire/transpiration  condense/condensation  precipitation  solid, liquid, gas | runoff  properties  weight  mass  gram(s)  water vapor  interaction  physical change  chemical change |
| **Energy: Conservation and Transfer**  **5.P.3 Explain how the properties of some materials change as a result of heating and cooling.**  5.P.3.1 Explain the effects of the transfer of heat (either by direct contact or at a distance) that occurs between objects at different temperatures. (conduction, convection or radiation).  5.P.3.2 Explain how heating and cooling affect some materials and how this relates to their purpose and practical applications. | heat  transfer  convection  conduct/conduction conductor  insulator  radiate/radiation | properties  matter  energy  heat energy  thermal energy  temperature |

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| **Earth Science** | | | |
| **Earth Systems, Structures and Processes**  **5.E.1 Understand weather patterns and phenomena, making connections to the weather in a particular place and time.**  5.E.1.1 Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.  5.E.1.2 Predict upcoming weather events from weather data collected through observation and measurements.  5.E.1.3 Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation. | weather  wind speed  wind direction  precipitation  temperature  jet stream  air/water currents  ocean current  air pressure  high/low pressure  air mass  atmosphere  front  humidity  trade winds  drought  elevation | evaporation  condensation  weather instruments  thermometer  barometer  anemometer  wind vane  rain gauge  clouds: stratus, cirrus, cumulous, cumulonimbus  Gulf stream  El Nino/La Nina  latitude/longitude  hemisphere | |
| **Structures and Functions of Living Organisms**  **5.L.1 Understand how structures and systems of organisms (to include the human body) perform functions necessary for life.**  5.L.1.1 Explain why some organisms are capable of surviving as a single cell while others require many cells that are specialized to survive.  5.L.1.2 Compare the major systems of the human body (digestive, respiratory, circulatory, muscular, skeletal, and cardiovascular) in terms of their functions necessary for life. | cell  organism  unicellular  multicellular  single-celled organism  transport  system  energy  amoeba  bacteria  microscopes  Cardiovascular System  Circulatory System heart, blood, vessels | Respiratory System  nose, trachea, lungs  Skeletal System bones  Muscular System muscles  Digestive System mouth, esophagus, stomach, intestines  Nervous System  brain, spinal cord, nerves |

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| **Life Science** | | |
| **Ecosystems**  **5.L.2 Understand the interdependence of plants and animals with their ecosystem.**  5.L.2.1 Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.  5.L.2.2 Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).  5.L.2.3 Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem. | food chain  food web  energy pyramid  life cycles  producer  consumer  decomposer  animal adaptations  plant adaptations  interdependence  interconnected  ecosystem  organism  photosynthesis  nutrient  biotic/abiotic herbivore  carnivore  omnivore | climate  prey/predator  competition  natural resources  population  environment  communities  habitat  terrestrial  aquatic  forests  deciduous forest  grasslands  estuary  salt marshes  oceans/lakes/ponds  plankton/  phytoplankton  bacteria |
| **Evolution and Genetics**  **5.L.3 Understand why organisms differ from or are similar to their parents based on the characteristics of the organism.**  5.L.3.1 Explain why organisms differ from or are similar to their parents based on the characteristics of the organism.  5.L.3.2 Give examples of likenesses that are inherited and some that are not. | organism  inherit(ance)  parent  offspring  trait  species | DNA  population  community  culture  environment  learned/acquired |

**Resources:**

* Science Essential Standards: <http://scnces.ncdpi.wikispaces.net/file/view/NCES%203-5.pdf/565466269/NCES%203-5.pdf>
* Grade 5 Science Unpacking Document <http://scnces.ncdpi.wikispaces.net/file/view/5.pdf/449657522/5.pdf>
* Assessment Examples: <http://scnces.ncdpi.wikispaces.net/file/view/Science%20K-5%20EssSt%20and%20CO%20Assessment%20Examples%20PDF.pdf/350445250/Science%20K-5%20EssSt%20and%20CO%20Assessment%20Examples%20PDF.pdf>
* Grade 5 Resource Packs: <http://scnces.ncdpi.wikispaces.net/Grade+Five+Resources>
* Glossary of Terminology: <http://scnces.ncdpi.wikispaces.net/file/view/Glossary%20Of%20Terms.pdf/313633078/Glossary%20Of%20Terms.pdf>
* Released EOG Science Test Grade 5: <http://www.ncpublicschools.org/docs/accountability/testing/releasedforms/g5scipp.pdf>